

I claim:

- 1 1. A door trim panel assembly for an automotive vehicle, said door trim
2 panel assembly comprising:
3 an armrest having an inner edge and an outer edge;
4 an upper panel having a side wall and a support wall extending transversely
5 from said side wall for supporting said inner edge of said armrest, said support wall
6 having a distal end;
7 a lower panel having a side wall and a support flange extending transversely
8 from said side wall of said lower panel for supporting said outer edge of said armrest,
9 said support flange having a distal end, said distal end of said support wall and said
10 distal end of said support flange having a frangible connection to absorb energy
11 associated with a side vehicle impact and allow transverse displacement of said
12 support flange relative to said support wall.
- 1 2. A door trim panel as set forth in claim 1, wherein said armrest includes
2 a top surface and an opposite bottom surface, said armrest having a plurality of
3 support ribs projecting between said bottom surface and said support wall and flange.
- 1 3. A door trim panel as set forth in claim 2, wherein said armrest includes
2 a plurality of grooves formed in said bottom surface to allow said armrest to buckle

3 transversely during said transverse displacement of said support flange relative to said
4 support wall and, thereby, absorb energy associated with the side vehicle impact.

1 4. A door trim panel as set forth in claim 3, wherein said plurality of
2 grooves are disposed longitudinally along said bottom surface of said armrest.

1 5. A door trim panel as set forth in claim 4, wherein said plurality of
2 grooves are disposed between said plurality of support ribs.

1 6. A door trim panel as set forth in claim 5, wherein each of said plurality
2 of grooves has a generally V-shaped cross section.

1 7. A door trim panel as set forth in claim 6, wherein said top and bottom
2 surfaces of said armrest extend transversely between said outer edge and said inner
3 edge.

1 8. A door trim panel as set forth in claim 7, wherein said outer edge of
2 said armrest is displaced transversely with said support flange to absorb energy
3 associated with the side vehicle impact.

1 9. A door trim panel for an automotive vehicle, said door trim panel
2 comprising:

3 an upper panel having a side wall and a support wall extending transversely
4 from said side wall that supports said inner edge of said armrest, said support wall
5 having a distal end;

6 a lower panel having a side wall and a support flange extending transversely
7 from said side wall of said lower panel that supports said outer edge of said armrest,
8 said support flange having a distal end, said distal end of said support flange and said
9 distal end of said support wall having a frangible connection to allow transverse
10 displacement of said support flange relative to said support wall during a side vehicle
11 impact; and

12 an armrest having a bottom surface, said bottom surface having a plurality of
13 grooves to allow said armrest to buckle transversely during said transverse
14 displacement of said support flange relative to said support wall and, thereby, absorb
15 energy associated with the side vehicle impact.

1 10. A door trim panel as set forth in claim 9, wherein each of said plurality
2 of grooves has a generally V-shaped cross section.

1 11. A door trim panel as set forth in claim 10, wherein said armrest
2 includes a plurality of support ribs projecting from said bottom surface of said
3 armrest.

1 12. A door trim panel as set forth in claim 11, wherein said plurality of
2 support ribs are spaced apart and said plurality of grooves are disposed therebetween.